LEVEL II

Research Memorandum 68-5

INTERNAL ANALYSIS OF PERSONAL INVENTORY
FOR THE DIFFERENTIAL OFFICER BATTERY

D D C

RECEIVED

DEC 20 1979

A

BEFRL

U. S. Army
Behavioral Science Research Laboratory

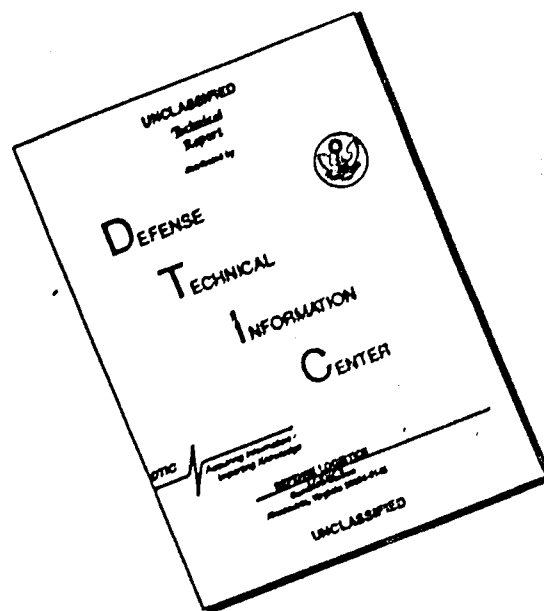April 1968

79 12 18 318

DISCLAIMER NOTICE

THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

Army Project Number
2J024701A722

Officer Prediction d-44

(9) Research Memorandum 68-5

(6) INTERNAL ANALYSIS OF PERSONAL INVENTORY FOR THE
DIFFERENTIAL OFFICER BATTERY.

(10) Kay H. Smith

Louis P. Willemin, Task Leader

(14) BESRL-RM-68-5

(12) 39

Submitted by:
William H. Helme
Chief, Behavioral Evaluation
Research Division

Approved by:
J. E. Uhlaner, Director
Behavioral Science
Research Laboratory

Accession For
NTIS GRA&I
DDC TAB
Unannounced
Justification

By
Distribution/
Availability Codes
Avail and/or
special

Dist

(11) April 68

Research Memorandums are informal reports on technical research
problems. Limited distribution is made, primarily to personnel engaged
in research for the U. S. Army Behavioral Science Research Laboratory.

402797

INTERNAL ANALYSIS OF PERSONAL INVENTORY FOR THE DIFFERENTIAL OFFICER BATTERY

The Behavioral Science Research Laboratory is conducting an extensive program of research designed to determine the extent to which ability to meet the psychological demands of combat, administrative, and technical officer assignments can be differentially predicted by psychological measures. As the first step of this program, an extensive battery of experimental tests was constructed and administered to over 6000 officers on entry to active duty in 1958. One of the tests in this battery was the Officer Leader Self-Description Blank, DOLBIB-1 (PT 3331).[1] On the basis of item analysis against job performance ratings after about 18 months of service, the earlier battery—Differential Officer Leadership Battery (DOL)—was revised and shortened to form the Differential Officer Battery (DOB).[2] In this process, DOLBIB-1 was shortened from 400 to 330 items and became Differential Inventory B, DI-B (PT 4153).

In 1961 and 1962, the DOB was administered to about 4000 officers upon their entry to active duty. The scales derived from DI-B, along with those representing the other instruments of the DOB, will be validated in two broad types of criterion situations: (1) carefully standardized situational measures in a simulated combat environment at the Officer Evaluation Center and (2) evaluations of actual job performance in both active combat theater operations in Vietnam and in combat readiness operations in Korea, Europe, and CONUS.

OBJECTIVES

The present Research Memorandum describes the internal analysis of DI-B for the purpose of developing psychologically homogeneous scales. The specific objectives of the study were (1) to determine the number of relatively independent factors which can be reliably obtained from exclusive sets of items in the DI-B; (2) to relate such factor scales to each other and to a priori content scales established during test construction, in particular, to determine to what extent such factors correspond to the major hypothesized dimensions of combat, administrative, and technical requirements; and (3) to select the scales for scoring and validation in subsequent research.

---

[1] Bolin, S. F., J. E. Marron, and C. D. Johnson. Construction of an experimental officer leader self-description blank, DOLBIB-1. Research Memorandum 57-7. April 1957.

[2] Willemin, L. P. Prediction of officer performance. Technical Research Report 1134. March 1964.

METHOD AND PROCEDURE

STRUCTURE OF THE DI-B

The DI-B consists of 330 items. Of these items, 300 are self-descriptive statements dealing with a wide variety of interests, activities, skills, talents, and feelings. The examinees were instructed to mark the "A" space on their answer sheets if they felt that the item described them and the "B" space if they felt it did not. The remaining 30 items are of the two-alternative, forced-choice variety. The content of the alternatives in the forced-choice items is similar to that of the simple self-description items.

SAMPLE

For this study and for others involving internal analysis of other DOB measures, a stratified sample of 900 cases was selected from the 4000 to whom the DOB has been administered. The sample was composed of 100 randomly-selected cases in each of nine branches of service as follows:

Infantry	Engineer	Quartermaster
Armor	Signal	Adjutant General
Artillery	Ordnance	Finance

STATISTICAL PROCEDURES

As a first step, p-values were computed for responses to each item. At this point, two items (57 and 143) were discarded from further analysis because their p-values did not fall between .10 and .90. The remaining 328 items were interrcorrelated, using tetrachoric r. The item intercorrelation matrix, based on a key giving credit to all "A" responses, was subjected to a principal components factor analysis, using the highest off-diagonal correlation as the estimate of communality. Varimax rotation was carried out on successively larger numbers of factors to a total of 15. These 15 factors, on which the scales described below are based, accounted for 82 percent of the variance in the matrix. The rotated 15-factor matrix is presented as table A-4 of the Appendix. At a later point, it was necessary to discard two additional items (120 and 153) when it was discovered that errors in machine scoring had been made on a substantial number of cases.

From the factor loadings for individual items, it was determined that the factors all seemed to represent psychologically meaningful dimensions. Table A-3 provides a listing of items with loadings of .25 or above on each of the factors in descending order of their loading magnitude. Preliminary scales were constructed around the factors utilizing the following criteria for assignment of an item to a scale:

(1) The item must have its highest loading on that scale. (2) The loading must be at least .25. (3) The magnitude of the item's highest loading must be at least one and one-half times the magnitude of its next highest loading. By this procedure, 184 items were assigned to the 15-factor scales. Four of the factors received five or fewer items using these criteria. Inspection of earlier rotations revealed that these were the later emerging factors.

Among the remaining items, several clusters were found involving items with substantial loadings on the same two factors. An additional cluster was found involving items with patterns of loadings on four factors. Since these clusters each seemed to involve a single meaningful dimension, they were also scored as preliminary scales. The 11 scales thus derived were made up of items ranging in number from 3 to 8, and accounted for an additional 54 items.

Items which had not been assigned to scales based on factors or combinations of factors were assigned to scales based upon an a priori key made up when DOLBIB-1 was constructed. There were 15 of these scales which contained from 1 to 11 items.

The 41 preliminary scales were scored and the scores were intercorrelated in order to assess their homogeneity and freedom from overlap. Based upon the intercorrelation matrix, and using the requirement of a minimum of four items to make up a scale, item recombinations were undertaken in order to establish a final set of scales which would be eventually scored and used in validation of the DOB. This process was carried out for factor scales which were inadequately represented by items, and for combination scales which seemed to overlap each other in content as shown by the intercorrelation matrix of preliminary scales. The major statistic used in this final process was item intercorrelation. In cases where the items had not been clearly assigned to a factor score on the basis of one dominant factor loading, attempt was made to establish clusters with reasonably high average item intercorrelations. The specific procedures and the values of the intercorrelations are given below along with the descriptions of the scale contents.

THE FINAL DI-B SCALES

The listing of item numbers in each scale and the alternative which should be keyed is given in Table A-1. Only the general nature of the scale content is given here. The value of the scales will reside in their empirical validity for specific criteria and not in speculation as to their theoretical meaningfulness.

SCALE 1 (Mechanical)

This scale represents factor I of the 15-factor rotation. It is well defined by 28 items, virtually all of which are statements of mechanical aptitude or of interest in working with machines. The scale seems clearly to be one of mechanical aptitude and interest.

SCALE 2 (Administrative)

This scale represents factor II. It is defined by 29 items, each of which represents some phase of administrative work, from bookkeeping to managing stores. The scale seems clearly to represent interest in and aptitude for administrative work. Five items originally assigned to this scale were reassigned to two of the combination scales for reasons described under those scales.

SCALE 3 (Aggressive self-assurance)

This scale represents factor III. It is defined by 13 items, and seems to represent a self-description which is cocky, self-centered, and self-seeking. There is also desire for excitement, willingness to take a chance and to skirt the edge of the law. Item 41, originally discarded because of similar loadings on both factor III and factor XI, was added since factor XI is not represented by a scale.

SCALE 4 (Frustration tolerance)

This scale represents factor IV. It is defined by 15 items, which describe various events and situations as producing annoyance. The items are scored in such a way that disagreement with the item, or stating that it is not descriptive of the examinee, is credited with a point. Of all the scales this one is most homogeneous with regard to item content.

SCALE 5 (Scientific)

This scale represents factor V. It contains 9 items describing interest in or aptitude for scientific pursuits. Also included are items describing the examinee as having an analytical mind, as being able to quickly understand new and difficult information, as having interest in activities such as missile testing, and as knowing about communications systems.

SCALE 6 (Outdoor skills and combat leadership)

This scale represents factor VI. It is composed of 21 items, which describe the examinee as having combat skills (usually of a leadership nature) and skills or interests in outdoor activities. Five items which did not seem to fit into other clusters were added to the 16 items in the preliminary scale. All 5 had their highest factor loading on factor VI, and approached satisfaction of the other criteria for assignment to a factor score given above.

SCALE 7 (Verbal or social leadership)

This scale represents factor VII. The scale has 22 items, most of which describe the examinee as a leader, but without reference to specific situations or activities in which leadership is exercised. This type of leadership is contrasted with the combat leadership represented by scale 6 and the situation or activity-related leadership of scales 8, 13, 15, 16, 19, and 22 below. Two items were added to the 20 in the preliminary scale for the reasons given under scale 6 above.

SCALE 8 (Athletics)

This scale represents factor VIII. Ten of the items of DI-B were assigned to this scale. All the items have reference to athletic activities or physical prowess. There is evidence of interest in leadership of athletic activities.

SCALE 9 (Concern for order)

This scale represents factor IX. The scale has 9 items of a relatively heterogeneous nature. They seem to represent concern for security and making sure that all rules and regulations are kept. The nature of this cluster of items is the most difficult to interpret of all the scales. The factor loadings are fairly low, the highest being .45, with 7 of the 9 being below .38.

SCALE 10 (Freedom from neurosis)

This scale represents factor X. The scale contains 11 items, most of which describe common neurotic symptoms such as nervousness, tension, irritability, embarrassment, and excitement. These items are scored when the examinee indicates that they are not descriptive of him, so that a high score on the scale would indicate freedom from neurosis.

SCALE 11 (Easy-goingness)

This scale represents factor XII. Ten items are included in this scale. To the 4 items assigned to the preliminary scale, 6 more were added, since the 4 original items showed quite low item intercorrelations. All of the added items had loading of at least moderate value on factor XII. The 10-item scale has an average tetrachoric item intercorrelation of .19. This average value is equal to about half the average estimated communality (.42) of these items. The relative comparison of average item intercorrelation with average estimated communality provides a rough index of the proportion of common item variance accounted for within the scale. The items show a fairly high degree of apparent consistency, referring in the main to personal characteristics or behavior which is fun-loving, carefree, and non-serious. A person scoring high on this scale could reasonably be regarded as having a picture of himself as a hail-fellow-well-met.

SCALE 12 (Electronics and communication versus civil engineering)

This scale represents factor XIII. The scale has 6 items, and seems genuinely bipolar. The items are scored so that a high score indicates interest in construction and the operation of heavy equipment along with interest in civil engineering. A low score, on the other hand, indicates interest in electronics and communications. Only 3 items were assigned to this scale in the preliminary procedures. The 3 additional items were chosen on a basis similar to that described under scale 11 above. The average item tetrachoric intercorrelation for the 6 items was .19. The item intercorrelations do not account for a majority of the common variance shown by the individual items. The average estimated communality was .64.

SCALE 13 (Active supervisory leadership)

This scale represents factor XIV. The 8 items seem to represent direct supervisory leadership, primarily in the areas of supply, transportation, and communication. One item was added to the 7 in the preliminary scale on the same bases as those described under scale 6 above.

SCALE 14 (Military intelligence)

This scale mainly represents factor XV. Among the preliminary scales, the scale for factor XI was represented by only 1 item, while factor XV was represented by 5 items. An additional 9 items were grouped under the a priori scale of military intelligence. In the preliminary scale intercorrelation, the item representing factor XI and the factor XV scale correlated with the a priori intelligence scale .54 and .53 respectively. In addition, the two factor scales correlated .21 with each other. While

low, the r is significantly different from chance. Since the items seemed to share a common reference to interest in intelligence as an assignment, a matrix of item intercorrelations was constructed. The 15 items assigned to the composite intelligence scale showed an average item tetrachoric intercorrelation of .34. Their average intercorrelation is equal to more than half their average estimated communality of .51.

SCALE 15 (Administrative supervision)

This scale represents a combination of factors II and XIV. The 11 items represent active supervision concerned primarily with supplies and warehousing, along with transportation and traffic. The items all have substantial loadings on factors II and XIV. Three items (130, 150, and 161) were originally assigned to factor II. However, since they had substantial loadings on factor XIV, even though not high enough to prevent their meeting the criteria for assignment to a factor scale, they were reassigned to scale 15. All 3 of these items had high average intercorrelations with the items assigned to the preliminary II, XIV combination (.48, .43, and .47, respectively). The average tetrachoric intercorrelation of the 11 items of this scale was .48, which is about three-fourths their average estimated communality of .62.

SCALE 16 (Combat engineering)

This scale represents a combination of factors I, V, VI, and XIV. The 7 items assigned to this scale for the preliminary analysis all had substantial loadings on at least three of these four factors. On the basis of item intercorrelations, 4 items were added. The items seem to represent a combination of interest in actual job supervision (factor XIV), mechanical interest (factor I), scientific interest (factor V), and interest in the rugged outdoors (factor VI). They represent planning and building fortifications, laying roads through rough country, and handling heavy equipment, and the like. The 11 items showed an average intercorrelation, using tetrachoric r, of .43, which is equal to about 65 percent of their average estimated communality of .68.

SCALE 17 (Capacity for detailed work)

This scale represents a combination of factors II and V. While there are only 4 items in this scale, they show a considerable degree of homogeneity centered around interest in and capacity for detailed work. The average tetrachoric item intercorrelation among the 4 items was .37, equal to about three-fourths their average estimated communality of .49.

SCALE 18 (White-collar versus manual work)

This scale represents a combination of factors II and VI. The 6 items all seem to involve some kind of choice between outdoor manual work or supervision of manual work and administrative or paper work. Three of the items were of the two alternative, forced-choice type, with one alternative representing each pole of the scale. Two others involved a statement of preference for one kind of activity over another. The final item required rather direct identification with white-collar work. The items are scored so that a high score on the scale is indicative of preference for white-collar work. The average tetrachoric item intercorrelation among the 6 items was .40, which is equal to about 70 percent of their average estimated communality of .57.

SCALE 19 (Administrative leadership)

This scale represents a combination of factors II and VII. The 8 items assigned to this scale seem to involve exertion of leadership within the sphere of administration. There is some indication that they represent a vigorous approach to administrative leadership, along with human relations skills in the area of office work. Two items (74 and 107) were taken from the preliminary scale for factor II for the same reasons described under scale 15 above. The average tetrachoric inter-correlation for the 8 items was .37, which is equal to about two-thirds their average estimated communality of .54.

SCALE 20 (Freedom from social alienation and self-deprecation)

This scale represents a combination of factors IV, VII, and X. Two preliminary scales were formed, one involving items with moderate load-ings on factors IV and X, and one with items having moderate loadings on factors VII and X. In the intercorrelation of preliminary scales, these two scales showed a very similar pattern of correlation with other scales. Both were significantly correlated with Factors IV, VII, and X, and with each other. Inspection of the items revealed apparent similarity. The items center around descriptions of self and involve uselessness, not caring, indecision, and antagonism for other people. The overall picture is one of neurotic withdrawal. For this scale, the items are keyed so that indication that the item is not descriptive of the examinee is given point credit. In this way a high score would indicate absence of the neurotic tendencies described by the items. The average tetrachoric item intercorrelation of the 9 items was .25, which is equal to more than half their average estimated communality of .44.

SCALE 21 (Capacity for abstract thinking)

This scale represents a combination of factors I and V. The 6 items
primarily involve ability to prepare or comprehend diagrams and blue-
prints, although 2 items involve interest in study of ballistics and
electronic fire control. The average tetrachoric intercorrelation of the
6 items was .45, which is equal to about two-thirds their average estimated
communality of .67.

SCALE 22 (Agressive physical leadership)

This scale represents a combination of factors VI, VII, and VIII.
As with scale 20, preliminary scales were established for combinations of
factors VI and VII, and of factors VI and VIII. Because of their similar
patterns of intercorrelations, and the fact that the VI, VII scale con-
tained only 3 items, the two sets of items were combined in a matrix of
item intercorrelations. The average tetrachoric r among the 10 items was
.25, which is equal to nearly half their average estimated communality of
.52. The items are somewhat heterogeneous in their content, but involve
vigor, tough leadership of men in difficult situations, and willingness
to accept some of the more difficult leadership tasks, such as giving
reprimands and efficiency ratings.

RESIDUAL ITEMS

Among the 326 items finally retained for the analysis, 55 were not
assigned to any of the 22 scales. None of these items has a loading in
excess of .30 on any of the 15 factors. The average estimated communality
of these items accounted for in the 15-factor rotation was .21, compared
to an average communality of .47 for the items assigned to scales.
Though there are concentrations of up to 8 residual items in a priori
clusters, there is little likelihood that anything would be gained by
scoring these as scales. The average item intercorrelation for any of
these residual clusters is never in excess of .08. It is unlikely that
adequate reliability could be established for these scales. In any case,
the residual items are listed in appendix table A-2 along with the a priori
scales with which they are associated and the scoring directions which
these scales would require.

Nearly half the forced-choice items (14 of 30) fell into the residual
group. As a whole, the 30 items had an average communality of .28 in the
15-factor rotation. They seem, in general, to have less common variance
than the other items in the DI-B.

CONCLUSIONS

In terms of the objectives of this project, it appears that the following results have been achieved: (1) Eleven factors have been extracted, which apparently can be scored with some reliability. (2) These factors are quite independent, the only correlation coefficients of any magnitude between their scales being for I and V (r = .41), I and VI (r = .35), IV and X (r = .32), and between VII and VIII (r = .31). (3) Three other scales were established to represent factors XII, XIII, and XV, but these scales are less factorially pure. (4) Eight additional scales were constructed from items relating to combinations of factors. While these scales seem to have a degree of homogeneity and to represent meaningful content areas, it remains to be seen whether they will demonstrate validity independent of the factor scales. These scales correlate fairly highly with the scales representing factors on which their items had substantial loadings, but are relatively independent among themselves. (5) The three areas of officer assignment--combat, administrative, and technical--seem to be adequately and differentially represented by the various scales insofar as item content is concerned.

In future studies, a new sample will be drawn on which to establish the reliability of the scales, without capitalizing on the chance involved in the item intercorrelations upon which their selection was based. The validity of the scales will be determined for predicting success in performance at the OEC, in combat, and in combat-ready units in Vietnam, Korea, Europe, and CONUS.

APPENDIX

Items Selected for the 22 Scales of DI-B and
Statistical Data on Which Selection was Based

Table A-1

ITEMS ASSIGNED TO SCALES OF THE DI-B WITH KEYED ALTERNATIVES
(Numbers in parentheses indicate DOLBIB-1 items)

Scale Number	Title	Items
1	Mechanical	2(2)A[a], 99(148)A, 109(161)A, 119(175)A, 163(242)A, 170(252)A, 173(256)A, 175(258)A, 177(261)A, 179(264)A, 186(272)A, 189(275)A, 191(277)A, 192(278)A, 195(281)A, 200(291)A, 204(300)A, 213(313)A, 215(315)A, 221(324)A, 232(341)A, 267(388)A, 273(395)A, 278(400)A, 288(416)A, 291(423)A, 292(424)A, 316(459)A,
2	Administrative	78(113)A, 79(114)A, 82(119)A, 83(120)A, 88(129)A, 100(149)A, 101(150)A, 123(183)A, 127(189)A, 135(203)A, 137(207)A, 139(209)A, 140(211)A, 144(218)A, 167(246)A, 172(255)A, 176(260)A, 180(265)A, 184(270)A, 190(276)A, 197(283)A, 199(289)A, 203(299)A, 216(316)A, 218(320)A, 246(355)A, 268(389)A, 276(398)A, 295(428)A
3	Aggressive self-assurance	14(14)A, 18(20)A, 26(33)A, 41(56)A, 44(61)A, 50(69)A, 60(86)A, 230(338)A, 240(349)A, 265(386)A, 269(390)A, 284(408)A, 330(480)B
4	Frustration tolerance	208(304)B, 210(307)B, 220(323)B, 222(328)B, 226(334)B, 234(343)B, 247(358)B, 249(367)B, 252(371)B, 261(381)B, 271(392)B, 274(396)B, 279(402)B, 282(405)B, 297(431)B
5	Scientific	66(96)A, 81(117)A, 105(155)A, 115(171)A, 136(204)A, 224(332)A, 233(342)B, 241(350)A, 259(379)A
6	Outdoor skills and combat leadership	11(11)A, 38(48)A, 48(65)A, 94(138)A, 131(197)B, 165(244)A, 166(245)A, 169(251)A, 171(254)A, 178(263)A, 188(274)A, 196(282)A, 201(293)A, 209(305)A, 214(314)A, 231(340)B, 237(346)B, 250(369)A, 262(382)A, 298(432)A, 305(443)B
7	Verbal or social leadership	8(8)A, 15(16)B, 22(28)A, 24(31)A, 29(36)A, 33(41)A, 37(45)A, 47(64)B, 58(82)B, 61(87)A, 64(91)B, 67(97)A, 217(317)A, 223(330)A, 238(347)B, 242(351)B, 253(372)B, 283(407)B, 286(413)A, 296(430)A, 302(437)A, 324(471)B,

Preceding Page Blank -

Table A-1 (continued)

Scale Number	Title	Items
8	Athletics	3(3)A, 6(6)A, 20(23)A, 28(35)A, 31(38)A, 35(43)A, 46(63)A, 70(100)B, 243(352)A, 314(457)B
9	Concern for order	40(55)A, 145(219)A, 205(301)A, 227(335)A, 235(344)A, 239(348)A, 244(353)A, 266(387)A, 285(410)A
10	Freedom from neurosis	7(7)A, 16(17)A, 19(21)B, 30(37)B, 34(42)B, 43(59)B, 53(76)B, 54(77)B, 68(98)B, 69(99)B, 317(460)A
11	Easy-goingness	9(9)A, 12(12)A, 27(34)A, 212(311)A, 270(391)A, 280(403)A, 319(462)A, 321(467)A, 323(470)A, 325(472)A
12	Electronic and communication vs. civil engineering	104(153)B, 116(172)B, 129(193)A, 133(201)B, 138(208)A, 149(225)B
13	Active supervisory leadership	91(135)A, 103(152)A, 106(156)A, 110(163)A, 114(168)A, 148(224)A, 157(235)A, 159(237)A
14	Military intelligence	76(110)A, 77(111)A, 85(122)A, 93(137)A, 96(141)A, 97(143)A, 113(167)A, 128(191)A, 132(200)A, 141(212)A, 146(220)A, 147(222)A, 151(228)A, 158(236)A, 160(238)A
15	Administrative supervision	87(127)A, 90(131)A, 107(159)A, 118(174)A, 125(186)A, 130(196)A, 142(215)A, 150(227)A, 156(234)A, 161(239)A, 162(240)A
16	Combat engineering	71(101)A, 80(116)A, 86(123)A, 92(136)A, 95(140)A, 98(147)A, 122(181)A, 126(187)A, 152(229)A, 154(232)A, 183(268)A
17	Capacity for detailed work	89(130)A, 112(166)A, 264(385)A, 300(434)A
18	White-collar vs. manual work	73(104)A, 248(366)A, 263(383)A, 309(449)A, 318(461)B, 329(479)B
19	Administrative leadership	74(106)A, 111(164)A, 117(173)A, 164(243)A, 182(267)A, 187(273)A, 207(303)A, 281(404)A
20	Freedom from social alienation and neurotic self-deprecation	5(5)B, 36(44)B, 39(54)B, 49(66)B, 72(102)B, 229(337)B, 275(397)B, 277(399)B, 322(469)A

Table A-1 (continued)

Scale Number	Title	Items
21	Capacity for abstract thinking	75(107)A, 108(160)A, 155(233)A, 225(333)A, 236(345)A, 256(376)A
22	Aggressive physical leadership	1(1)A, 4(4)A, 32(39)A, 52(71)A, 56(80)A, 59(84)A, 84(121)A, 219(321)A, 294(427)A, 313(455)A

[a]Letter following item numbers indicates the alternative keyed for point credit.

Table A-2

RESIDUAL ITEMS WITH ASSOCIATED A PRIORI CLUSTERS
(Numbers in parentheses indicate DOLBIB-1 items)

Cluster Title	Items
General adjustment-valid	10(10)B[a], 13(13)A, 21(25)A, 23(30)B, 51(70)B, 62(88)B, 65(95)B
General adjustment-suppressor	17(18)A
General leadership-valid	25(32)A, 42(57)A, 301(436)B, 303(438)A, 306(444)B, 308(448)B, 320(465)A, 327(475)B
General leadership-suppressor	45(62)A, 55(79)B, 63(89)A, 311(452)A, 312(454)B, 315(458)B, 326(474)B
Engineering	134(202)B
Communications	102(151)A
Transportation	121(179)B, 124(185)A
Infantry	174(257)B, 181(266)A, 185(271)B, 193(279)B, 198(287)B
Administration	168(248)A, 194(280)A, 202(297)A
Combat command	206(302)B, 245(354)A, 255(374)B, 258(378)B, 260(380)B, 272(393)B, 299(433)A
Administrative command	211(310)A, 257(377)A, 287(415)A, 304(442)A, 307(445)B, 310(450)A, 328(478)A
Technical Command	228(336)A, 251(370)A, 254(373)A, 289(419)B, 290(421)A, 293(426)A
Field Artillery	No residual items
Military intelligence	No residual items
Maintenance	No residual items

[a] Letter following numbers indicates alternative keyed in the a priori keys.

Table A-5

ITEMS WITH LOADINGS .25 OR ABOVE ON EACH FACTOR IN THE ROTATED 15-FACTOR MATRIX

Factor I		Factor II		Factor III		Factor V		Factor VI	
Item	Loading	Item	Loading	Item	Loading	Item	Loading	Item	Loading
101	.92*ᵃ	88	.89*	18	.58*	156	.67*	169	.70*ᵃ
173	.88*	100	.85*	60	.50*	259	.66*	171	.68*
189	.88*	190	.85*	265	.50*	103	.65	262	.67*
278	.88*	137	.84*	14	.49*	241	.65	188	.66*
291	.88*	140	.84*	26	.43*	224	.63*	166	.66*
192	.87*	83	.82*	27	.43	120	.59ᶜ	58	.65*
213	.87*	78	.82*	50	.43*	153	.58ᶜ	201	.64*
204	.84*	199	.80*	240	.43*	155	.56	94	.62*
186	.83*	159	.79*	284	.41*	233	-.56*	214	.52*
232	.77*	172	.79*	41	.41*	300	.52	250	.54*
179	.73*	295	.77*	280	.40	105	.52*	131	-.51*ᵇ
103	.73*	123	.75*	209	.39*	281	.51*	293	.51*
99	.72*	197	.74*	141	.38	236	.50	86	.48
195	.67*	79	.73*	230	.37*	66	.49*	32	.47
119	.64*	218	.70*	44	.34*	115	.49*	48	.47*
177	.63*	135	.69*	196	.33	256	.49	92	.47
292	.62*	216	.69*	117	.32	71	.44	122	.46
256	.59	176	.68*	328	-.30	112	.43	196	.45*
267	.59*	167	.68*	330	-.29*	75	.42	209	.44*
2	.58*	246	.67*			86	.41	305	-.43*
175	.57*	134	.66*			89	.39	76	.43
316	.57*	142	.65			305	.36	84	.43
170	.56*	101	.64*			151	.33	11	.42*
200	.56*	157	.62	Factor IV		146	.31	4	.41
236	.55	74	.60	Item	Loading	157	-.31	176	.41*
108	.52	161	.60	247	.64*	73	.30	141	.40
183	.51	130	.59*	271	.58*	80	.30	263	-.40
152	.49	32	.58*	261	.58*	126	.30	52	.39
71	.48	130	.58	297	.57*	225	.30	31	.36
215	.45*	150	.57	222	.55*	293	.30	316	.36
95	.43	203	.57*	252	.55*	245	.29	93	.35
98	.43	107	.56	249	.54*	92	.25	116	.35
288	.43*	164	.52	234	.50*	301	-.25	152	.35
273	.43*	313	-.52	210	.49*			162	.35
50	.42	248	.51	279	.49*			231	-.35*
221	.42*	144	.50*	220	.46*			80	.34
259	.42	263	.50	282	.41*			85	.34
126	.41	276	.49*	208	.37*			167	-.34
129	.40	37	.48	226	.36*			119	.33
224	.35	39	.46	72	.35			329	.33
298	.35	125	.46	229	.35			56	.32
262	.35	309	.45	275	.34			156	.32
105	.34	207	.44	274	.32*			243	.32
109	.33*	182	.40	194	.30			309	-.32
138	.33	127	.39*	49	.28			120	.31
155	.33	264	.39	287	.27			105	.31*
92	.32	118	.38					292	.30
153	.32	114	.37					237	-.29*
225	.31	300	.36					207	-.27
250	.31ᵇ	91	.35					320	-.27
78	-.30ᵇ	92	-.35					1	.26
103	.30	112	.34						
233	-.30	281	.34						
154	.30	90	.33						
228	.27	233	.33						
25	.26	131	.32						
		327	.31						
		211	.29						
		268	.25*						
		304	.25						

Table A-3 (continued)

Factor VII

Item	Loading
8	.74*
67	.66*
37	.63*
22	.61*
33	.60*
286	.56*
64	-.55*
52	.53
238	-.52*
15	-.51*
47	-.51*
90	.51
24	.50*
29	.50*
58	-.49*
223	.49*
5	-.47
12	.47
164	.44
283	-.43*
277	-.42
56	.40
253	-.40*
207	.39
217	.39*
242	-.39*
59	.38
74	.38
296	.38*
281	.37
313	.37
61	.36*
84	.34
147	.34
132	.34
302	.34*
324	-.34*
111	.33
187	.33
171	.31
132	.30
294	.30
315	-.29
322	.27
1	.26

Factor VIII

Item	Loading
6	.81*
243	.69*
20	.64*
35	.59*
70	-.59*
31	-.57*
28	.54*
46	.52*
3	.45*
32	.43
4	.35
308	-.32
314	-.25*

Factor IX

Item	Loading
205	.45*
285	.44*
266	.37*
227	.36*
244	.34*
239	.32*
45	.30
42	.29
40	.28*
145	.28*
168	.28
235	.28*
13	.26
251	.26
303	.26

Factor X

Item	Loading
16	-.64*
30	.61*
43	.58*
7	-.52*
54	.52*
19	.47*
277	.47
69	.45*
68	.42*
36	.41
229	.41
34	.40*
53	.40*
317	-.38*
39	.35
275	.35
10	.28
63	-.28
49	.26

Factor XI

Item	Loading
160	.51
41	.40
132	.40
151	.34
320	-.27
97	.26
325	.26

Factor XII

Item	Loading
280	.49*
27	.47*
270	.44*
12	.41*
9	.40*
319	.35*
323	.34*
238	-.33
47	-.30
321	.30*
327	.29
326	.27
325	.25*
212	.24*

Factor XIII

Item	Loading
104	.53*
138	-.51*
149	.50*
116	.44*
155	.39
75	.33
80	-.33
129	-.31*
133	.29*
289	.28

Factor XIV

Item	Loading
114	.57*
110	.56*
125	.57
91	.57*
148	.56*
183	.56
103	.52*
90	.47
156	.47
159	.47*
142	.45
87	.44
98	.43
118	.43
152	.43
157	.43*
107	.40
116	.40
106	.39*
179	.39
154	.38
130	.37
162	.37
195	.37
200	.37
133	.36
122	.35
150	.34
80	.33
95	.32
161	.31
163	.31
92	.30

Factor XV

Item	Loading
93	.63*
77	.59*
113	.59*
85	.58*
158	.54*
141	.50*
76	.42*
146	.41*
147	.38*
96	.36*
132	.33*
327	-.26*
128	.26*
97	.25*
160	.23*d
151	.18*d

[a] Starred items are included in the scale representing the factor. Factors have been reflected so that a majority of loadings are positive.

[b] The signs of loadings should be interpreted on the basis of a key giving credit to all "A" responses.

[c] These items were discarded due to errors in machine scoring

[d] These items are shown despite loadings below .25 since they are included in the scale representing the factor.

Table A-4

ROTATED 15-FACTOR MATRIX

Part 1 - VARIMAX ROTATION ANALYSIS

PROPORTIONS OF VARIANCE

Var	Value	Var	Value	Var	Value	Var	Value
1	.0645	2	.0754	3	.0229	4	.0214
5	.0301	6	.0461	7	.0386	8	.0199
9	.0170	10	.0231	11	.0134	12	.0131
13	.0123	14	.0267	15	.0177		

HIGHEST LOADINGS

Var	Value	Var	Value	Var	Value	Var	Value
1	-0.9160	2	.8877	3	-0.5757	4	.6379
5	.6723	6	.7014	7	.7363	8	.8071
9	.4470	10	-0.6373	11	.5075	12	.4918
13	-0.5342	14	-0.5737	15	-0.6287		

COMMUNALITIES

Var	Value	Var	Value	Var	Value	Var	Value
1	.4284	2	.2254	3	.4382	4	.4551
5	.6731	6	.4872	7	.7368	8	.3167
9	.5592	10	.3648	11	.2078	12	.4374
13	.5178	14	.2052	15	.3138	16	.4350
17	.4407	18	.1907	19	.4683	20	.3876
21	.3900	22	.0739	23	.4613	24	.1087
25	.5363	26	.2200	27	.3117	28	.4873
29	.5592	30	.4739	31	.4665	32	.5638
33	.3350	34	.5523	35	.2654	36	.4059
37	.1057	38	.6624	39	.5406	40	.5214
41	.2335	42	.4712	43	.2311	44	.4868

Table A-4, Part 1 (continued)

COMMUNALITIES (continued)

No.		No.		No.		No.	
45	.4245	46	.3940	47	.3795	48	.4918
49	.6504	50	.2716	51	.3227	52	.1369
53	.3987	54	.2544	55	.3639	56	.1303
58	.2857	59	.3665	60	.4061	61	.3340
62	.1786	63	.1023	64	.1525	65	.4035
66	.4056	67	.5099	68	.5605	69	.2945
70	.4005	71	.5564	72	.7036	73	.2826
74	.4596	75	.5951	76	.5320	77	.4318
78	.5701	79	.9161	80	.6709	81	.6607
82	.6473	83	.5557	84	.6776	85	.5046
86	.4279	87	.5491	88	.5035	89	.9063
90	.5257	91	.3996	92	.5191	93	.7105
94	.2631	95	.5707	96	.518.	97	.5657
98	.5746	99	.6857	100	.6466	101	.7941
102	.5369	103	.2143	104	.5381	105	.4555
106	.2517	107	.3812	108	.6195	109	.8220
110	.6326	111	.5421	112	.2907	113	.4494
114	.3948	115	.6605	116	.3488	117	.5795
118	.2305	119	.5016	120	.5770	121	.6446
122	.5735	123	.4948	124	.6760	125	.2941
126	.4712	127	.6364	128	.3361	129	.2570
130	.5141	131	.6108	132	.5920	133	.4924
134	.8670	135	.1002	136	.6340	137	.6218
138	.6348	139	.5197	140	.7047	141	.7602
142	.3581	144	.7160	145	.3943	146	.1877
147	.5413	148	.4188	149	.4783	150	.5285
151	.3396	152	.3812	153	.6652	154	.6470
155	.3879	156	.6882	157	.5680	158	.4804
159	.5264	160	.4500	161	.4797	162	.5740
163	.6830	164	.7537	165	.5849	166	.2717
167	.4948	168	.7263	169	.3163	170	.7356
171	.1174	172	.6840	173	.7337	174	.8417
175	.3342	176	.4351	177	.6041	178	.5228
179	.5087	180	.7756	181	.6299	182	.1492

CUMULATIVES (continued)

183	.6913	184	.6262	185	.1713	186	.7305
187	.5891	188	.6035	189	.8439	190	.8376
191	.9177	192	.8194	193	.1328	194	.3148
195	.6446	196	.4670	197	.7310	198	.1490
199	.7337	200	.5765	201	.5449	202	.2236
203	.5186	204	.8313	205	.3922	206	.2520
207	.4765	208	.2591	209	.4303	210	.3799
211	.2310	212	.1296	213	.8418	214	.4984
215	.3821	216	.6303	217	.4052	218	.5804
219	.1064	220	.3194	221	.2852	222	.3526
223	.3541	224	.5999	225	.4019	226	.2335
227	.2044	228	.2029	229	.3898	230	.2221
231	.3694	232	.7111	233	.5649	234	.3088
235	.1467	236	.6842	237	.2354	238	.5414
239	.1613	240	.4486	241	.5809	242	.3598
243	.6257	244	.1996	245	.3644	246	.6307
247	.4824	248	.7752	249	.3638	250	.4876
251	.1593	252	.3566	253	.3258	254	.3375
255	.2273	256	.6693	257	.1525	258	.1174
259	.7417	260	.3041	261	.3824	262	.6576
263	.5410	264	.5132	265	.3333	266	.2632
267	.4429	268	.1294	269	.3622	270	.3522
271	.3881	272	.2046	273	.2873	274	.1601
275	.2852	276	.4786	277	.4749	278	.8524
279	.3412	280	.4692	281	.3714	282	.3296
283	.3467	284	.2721	285	.3366	286	.5241
287	.3527	288	.3251	289	.2450	290	.1546
291	.8708	292	.6642	293	.2630	294	.2922
295	.7337	296	.3113	297	.4082	298	.5656
299	.2954	300	.5884	301	.2551	302	.1994
303	.3328	304	.2462	305	.5240	306	.2423
307	.1464	308	.2455	309	.4942	310	.1170
311	.0565	312	.1272	313	.4263	314	.1284
315	.2261	316	.5940	317	.2904	318	.5474
319	.2654	320	.2822	321	.1344	322	.2865
323	.2363	324	.1626	325	.1598	326	.2902
327	.3477	328	.3459	329	.4071	330	.3050

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	-0.10	.16	.04	-0.11	.01	.26	.26	.08	.13	.05	.09	.00	-0.00	.07	-0.01
2	-0.58	-0.06	.01	.03	.12	.14	.11	.01	.09	-0.04	.01	.05	-0.06	.15	-0.10
3	-0.06	.01	.09	.03	.03	.18	.23	.45	.24	-0.20	.21	.03	-0.07	.03	-0.09
4	-0.11	.05	.06	-0.15	.02	.41	.21	.35	-0.02	-0.16	.05	-0.13	-0.02	-0.03	.05
5	-0.15	-0.05	.07	.18	.06	.01	-0.47	-0.09	.13	.36	.16	-0.14	.01	.01	-0.02
6	.08	-0.07	-0.01	.04	-0.03	.12	.17	.81	.01	-0.07	.07	.07	.10	.02	-0.07
7	-0.04	.05	-0.02	-0.04	.06	.10	.11	.10	.02	-0.52	-0.03	.06	-0.05	.03	.01
8	-0.03	.13	-0.09	.04	.03	.21	.74	.08	-0.01	-0.09	-0.09	-0.04	.09	-0.07	-0.14
9	.03	-0.13	-0.23	-0.03	-0.02	.06	-0.18	.12	.03	-0.25	.06	.40	-0.05	-0.09	.02
10	.04	.04	-0.27	-0.02	-0.10	-0.03	-0.02	.03	.18	.28	.02	-0.00	-0.04	-0.09	-0.03
11	-0.25	.01	-0.12	-0.05	-0.08	.42	.07	-0.04	-0.05	.16	.17	.08	.16	.23	.17
12	.05	-0.02	-0.21	-0.14	-0.10	-0.08	.47	-0.12	-0.07	.24	-0.04	.41	-0.05	.01	.03
13	.13	.04	.23	.01	-0.05	-0.09	-0.08	-0.10	.26	-0.09	-0.04	-0.11	.03	-0.05	.13
14	.04	-0.04	-0.49	.10	.08	.13	.06	-0.09	-0.02	.09	.08	.04	.04	.04	-0.07
15	-0.07	-0.09	.07	.10	.06	.11	-0.51	.00	.12	.31	-0.03	-0.13	.05	.04	.04
16	-0.06	.02	-0.13	.11	.03	.09	.14	.09	.04	-0.64	.05	.19	-0.06	.05	-0.06
17	-0.04	.09	.07	-0.07	-0.07	.17	.15	-0.04	.19	-0.24	.03	-0.02	-0.10	-0.03	-0.05
18	.06	-0.02	-0.58	-0.07	-0.00	.22	.23	.11	-0.01	.04	-0.03	.09	-0.02	-0.06	.03
19	-0.19	.05	-0.21	.08	.06	-0.10	.06	-0.06	.08	.47	.07	-0.16	.00	.16	.00
20	.10	.04	.02	-0.03	.05	.01	.05	.01	.01	-0.00	-0.07	.05	.01	-0.00	.03
21	-0.05	.09	.02	.05	.06	.01	.12	.11	-0.01	-0.13	.02	.01	-0.01	.09	.06

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
22	.03	.03	-0.10	-0.01	.01	.10	.61	.17	.05	-0.01	.05	-0.02	.18	-0.06	-0.13
23	.08	-0.00	-0.02	-0.02	-0.04	.06	.00	.01	.06	.22	-0.00	.06	.07	-0.03	-0.10
24	-0.02	.04	.08	.00	.02	.14	.50	.16	.15	-0.12	.08	-0.18	-0.03	.07	.00
25	-0.26	-0.00	-0.04	-0.03	-0.19	.09	-0.04	.14	.14	.04	.11	-0.10	.09	.14	.13
26	-0.02	-0.09	-0.43	.17	.00	.02	-0.05	.01	.05	.15	.12	.01	.17	-0.07	-0.12
27	.01	-0.14	-0.43	-0.05	-0.04	.06	-0.11	-0.00	.04	-0.10	.08	.47	.02	-0.13	-0.04
28	-0.06	.06	.17	.02	.06	.13	.25	.54	.11	-0.28	.10	-0.05	-0.12	.02	-0.10
29	-0.10	.11	.00	-0.04	-0.11	.21	.50	.16	.20	-0.12	-0.07	-0.22	-0.05	-0.01	.05
30	-0.01	.08	.00	.21	-0.07	-0.03	-0.13	.02	.07	.61	-0.10	-0.09	-0.03	.04	-0.07
31	.03	-0.05	.00	-0.03	-0.06	.36	.18	.57	.13	.06	-0.04	.02	-0.14	-0.14	-0.08
32	-0.02	-0.05	-0.08	-0.09	-0.06	.47	.79	.43	.11	-0.01	-0.08	-0.06	-0.20	-0.18	-0.01
33	-0.09	.16	-0.06	.05	-0.08	.12	.60	.21	.16	-0.04	.00	-0.19	.09	-0.10	-0.09
34	-0.06	.04	-0.02	.13	.01	-0.04	-0.18	-0.02	.09	.40	.05	.11	-0.03	.17	.02
35	.13	.10	-0.04	-0.05	.01	.05	.04	.59	-0.02	.05	-0.04	.10	.07	-0.06	-0.03
36	-0.03	-0.02	-0.15	.20	-0.02	.09	-0.28	-0.03	-0.01	.41	-0.02	.06	.06	-0.01	.04
37	-0.14	.09	-0.14	.02	-0.12	.27	.63	.17	.05	-0.28	-0.05	-0.06	-0.03	-0.13	-0.07
38	-0.24	-0.15	.03	-0.04	.03	.65	-0.01	.10	.06	.04	.10	.06	.09	-0.00	.04
39	.04	-0.09	-0.43	.22	-0.02	.06	-0.30	.13	-0.09	.35	.12	.07	.10	-0.03	-0.08
40	-0.08	-0.04	-0.03	.00	-0.06	.03	.06	.06	.28	.01	-0.03	-0.00	-0.01	-0.06	.06
41	-0.06	-0.13	-0.41	.01	.05	.21	-0.08	.04	-0.00	.20	.40	.04	-0.14	-0.10	.03
42	.13	.10	.10	-0.11	.03	.04	.14	-0.03	.29	-0.25	-0.05	-0.02	-0.04	-0.03	.01

- 23 -

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
43	-0.05	.15	-0.18	.14	.02	-0.03	-0.04	.08	.15	.58	.06	-0.16	.07	.06	.04
44	-0.16	-0.07	-0.34	.01	-0.05	.10	.02	.06	-0.14	.09	-0.04	.16	.05	.08	-0.08
45	-0.24	.25	.12	-0.07	.19	.01	-0.08	-0.14	.30	-0.05	-0.17	-0.08	.11	.12	-0.20
46	.02	-0.00	-0.17	-0.05	.02	.17	.14	.52	-0.08	-0.02	.02	-0.01	.12	-0.01	.05
47	-0.01	-0.16	-0.01	.12	.01	-0.10	-0.51	-0.12	-0.05	.17	.11	-0.30	.10	.01	-0.14
48	-0.17	-0.04	.05	-0.12	.06	.47	-0.06	-0.13	.18	-0.02	-0.12	.03	-0.06	-0.18	-0.22
49	-0.03	-0.02	-0.27	.28	.03	.11	-0.04	-0.12	.03	.26	-0.06	.05	.05	-0.00	-0.11
50	.05	-0.04	-0.43	.12	.04	.07	.03	-0.09	-0.23	.13	-0.05	.01	.14	.03	-0.11
51	-0.08	.05	-0.11	.10	-0.03	-0.00	.08	.13	.13	.17	-0.10	.01	.10	.11	-0.06
52	-0.07	.12	-0.05	.04	-0.09	.39	.53	.17	.23	-0.22	-0.07	-0.11	.14	-0.12	-0.06
53	-0.01	.10	-0.07	.23	-0.09	.02	-0.07	-0.05	-0.04	.40	-0.04	-0.02	-0.09	.04	.01
54	.01	.05	.01	.25	-0.03	-0.02	-0.13	-0.07	.01	.52	.04	-0.04	.04	.00	-0.03
55	-0.08	-0.05	-0.07	.22	.01	-0.05	-0.17	.02	-0.11	.03	.11	.09	.07	.01	.01
56	-0.05	.19	-0.08	-0.05	.08	.32	.40	-0.05	.10	-0.14	-0.12	-0.14	.01	-0.05	-0.14
58	-0.04	-0.06	-0.01	.15	.05	-0.10	-0.49	-0.07	.03	.16	.08	-0.15	-0.03	-0.14	-0.08
59	-0.04	.08	.05	-0.14	-0.07	.25	.38	.06	.10	-0.26	.01	.28	-0.01	.03	.06
60	-0.06	.03	-0.50	.06	-0.01	.13	.14	.08	-0.04	.10	-0.07	-0.07	.08	-0.01	-0.05
61	-0.01	.18	-0.16	-0.04	.09	.05	.36	-0.04	.09	-0.01	.15	-0.20	.03	-0.06	-0.09
62	-0.02	-0.06	-0.10	.11	.05	.06	-0.10	.07	-0.07	.21	.06	.00	-0.03	.04	-0.03
63	-0.01	-0.08	.02	-0.06	-0.01	-0.05	-0.02	.02	.22	-0.28	-0.04	.05	.02	.06	.07
64	.01	.04	.02	.06	-0.06	-0.03	-0.55	.13	.10	.24	.02	-0.06	.05	.02	.02

- 24 -

Table A-4 (continued)

Part 2 – ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
65	-0.01	.03	-0.22	.13	-0.06	-0.14	-0.02	.16	-0.02	.15	-0.06	.17	-0.02	-0.03	-0.06
66	-0.17	.08	-0.26	-0.07	.49	.03	.14	-0.01	.04	-0.29	.21	-0.04	.04	.11	-0.00
67	.04	.06	.08	-0.01	.05	.18	.66	.01	.05	-0.21	.06	-0.03	-0.06	-0.03	-0.15
68	-0.02	-0.04	-0.06	.16	-0.10	-0.02	-0.14	.04	-0.06	.42	.04	.18	-0.05	-0.02	-0.13
69	.04	-0.01	-0.22	.29	.03	.03	-0.15	.07	.12	.45	-0.11	-0.04	.07	.09	.02
70	-0.03	.07	.05	.01	.20	-0.10	.18	-0.59	-0.08	-0.00	.22	-0.23	-0.08	-0.01	-0.03
71	-0.48	-0.22	-0.08	.02	.44	.29	-0.01	.01	-0.02	-0.03	-0.04	.05	.22	-0.30	.00
72	.08	.04	.09	.35	.04	-0.16	-0.11	-0.03	-0.11	.26	.02	.04	-0.01	-0.06	.12
73	.12	.28	.22	.06	.30	-0.27	.05	-0.26	.02	-0.00	-0.01	-0.00	-0.04	.12	-0.10
74	.13	.60	-0.10	-0.02	-0.03	-0.09	.38	-0.05	-0.10	-0.03	-0.00	.11	-0.05	-0.15	-0.04
75	-0.20	-0.15	.11	-0.11	.42	.29	-0.05	.04	.16	.00	-0.15	.06	-0.33	-0.09	-0.11
76	.04	.07	-0.10	-0.01	.11	.43	.13	-0.00	-0.08	-0.06	-0.03	.00	-0.03	-0.12	-0.42
77	.10	-0.01	-0.22	.04	-0.05	-0.06	.04	.06	.05	.12	.10	.02	-0.00	.10	-0.59
78	.30	.82	.01	-0.07	-0.13	-0.18	-0.19	.01	.18	-0.01	-0.09	-0.00	-0.06	.08	.09
79	.11	.73	.07	-0.06	-0.23	-0.10	.04	-0.04	.02	-0.01	-0.03	.07	-0.09	-0.20	.05
80	-0.42	-0.21	-0.00	-0.10	.30	.34	-0.00	.03	.01	.01	-0.05	-0.00	.33	-0.33	.03
81	-0.29	-0.19	.11	-0.06	.51	.16	-0.03	-0.00	.01	.06	-0.22	.14	-0.24	-0.08	-0.09
82	-0.05	.58	-0.09	-0.09	-0.10	-0.02	.15	-0.00	.28	.13	.10	.00	.05	-0.21	.21
83	.29	.82	-0.04	-0.04	-0.16	-0.18	-0.07	.05	.06	.02	-0.07	-0.01	-0.10	.17	.04
84	-0.12	-0.03	-0.10	-0.07	-0.11	.43	.34	.27	.10	-0.08	-0.07	-0.13	.09	-0.20	.09
85	.17	.04	-0.22	.04	-0.12	.34	.25	.02	-0.06	.02	-0.01	.04	-0.07	-0.13	-0.58

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
86	-0.14	-0.11	.01	-0.02	.41	.48	.10	.01	-0.11	-0.05	-0.13	.01	-0.14	-0.21	-0.13
87	-0.01	.44	-0.05	-0.08	-0.06	-0.12	-0.04	-0.06	.19	-0.06	.00	.01	.02	-0.44	-0.02
88	.25	.89	-0.08	-0.02	-0.07	-0.08	-0.06	-0.01	.06	-0.02	-0.13	-0.01	-0.04	.10	.07
89	-0.09	.46	.10	.08	.39	-0.03	.09	-0.08	-0.01	-0.01	-0.04	-0.06	.06	-0.09	-0.08
90	.00	.33	-0.08	.01	-0.12	.10	-0.04	-0.10	.02	-0.05	.05	.05	.00	-0.47	-0.12
91	-0.08	.35	-0.02	-0.09	-0.07	.16	.11	-0.01	.12	-0.00	-0.02	.03	-0.03	-0.57	-0.05
92	-0.32	-0.35	-0.17	-0.04	.25	.47	.08	.12	-0.13	.02	-0.02	-0.05	.20	-0.30	.02
93	.12	.27	-0.07	-0.04	.05	.10	.05	-0.05	-0.02	.02	.01	.01	-0.13	-0.03	-0.63
94	-0.11	-0.19	-0.17	.05	.08	.62	.03	.09	-0.02	.01	-0.16	.02	-0.08	-0.23	-0.10
95	-0.43	-0.10	-0.03	.07	.25	.16	.12	.02	.08	.06	-0.12	.14	.27	-0.32	.04
96	.11	.16	-0.18	.07	.00	.19	.51	-0.03	-0.00	.02	.20	-0.05	-0.11	-0.11	-0.36
97	.09	-0.08	-0.16	-0.03	.18	.07	.14	.11	-0.09	.05	.26	-0.12	-0.02	-0.01	-0.25
98	-0.43	-0.10	-0.17	-0.02	.10	.35	-0.05	.21	-0.06	-0.07	-0.07	-0.04	.26	-0.43	.12
99	-0.72	-0.08	-0.00	-0.00	.21	.15	-0.03	-0.11	.06	-0.04	-0.01	-0.02	-0.11	.10	.11
100	.12	.85	-0.07	.04	-0.07	.00	-0.01	.03	-0.13	-0.06	-0.10	-0.03	-0.04	-0.02	.13
101	-0.05	.64	-0.01	-0.03	-0.25	.07	.10	.20	-0.11	.05	-0.02	.01	-0.10	-0.12	.00
102	.01	.15	.06	.08	.02	-0.08	.10	-0.03	.24	-0.20	.12	-0.09	-0.17	-0.07	-0.08
103	-0.30	.07	-0.02	.05	.10	.25	.05	.05	-0.18	-0.18	-0.09	-0.05	-0.12	-0.52	.05
104	-0.03	.01	.05	-0.01	.27	-0.05	.12	-0.05	.04	-0.05	-0.00	-0.03	-0.53	.27	-0.03
105	-0.34	-0.06	-0.05	.05	.52	.01	.04	-0.07	-0.12	-0.06	.20	-0.16	-0.22	-0.05	.08
106	-0.07	.25	.02	-0.01	.04	.21	-0.07	.03	.26	.15	.04	-0.03	-0.00	-0.39	-0.15

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
107	.03	.56	.08	.03	-0.17	.21	.06	.13	-0.14	-0.11	-0.12	-0.01	.03	-0.40	.09
108	-0.52	-0.25	-0.05	-0.02	.65	-0.07	-0.03	-0.08	-0.07	.01	.11	-0.11	-0.15	-0.01	.07
109	-0.33	.13	.01	.05	.14	.06	.01	-0.20	.04	-0.07	.21	.03	-0.08	.01	.02
110	-0.24	.16	.03	-0.04	.10	.29	-0.00	.06	-0.13	.01	-0.03	.04	.11	-0.56	.09
111	-0.14	.29	-0.23	-0.01	-0.07	-0.02	.33	.04	.07	.03	.04	.08	.05	.03	-0.03
112	.01	.34	-0.05	.00	.43	-0.13	-0.13	.15	.11	-0.10	-0.16	-0.03	.09	.11	-0.13
113	.20	.17	-0.10	-0.00	-0.09	.29	.21	.03	.01	.16	-0.05	.08	-0.14	-0.10	-0.59
114	-0.25	.37	-0.14	-0.01	-0.13	.20	.13	.13	-0.08	-0.04	-0.01	.01	.12	-0.57	-0.01
115	-0.12	-0.06	.13	.05	.49	.07	.17	-0.02	-0.08	.06	.08	-0.08	.00	-0.06	-0.12
116	-0.22	-0.02	.05	-0.06	.07	.35	-0.13	-0.02	.13	-0.07	-0.01	-0.02	-0.44	-0.40	-0.04
117	.05	.28	-0.32	.01	-0.02	-0.15	.27	-0.07	.08	-0.04	.21	-0.12	.02	-0.02	-0.22
118	-0.09	.38	-0.08	-0.03	-0.19	.12	.09	.05	.28	.08	.03	-0.01	-0.00	-0.43	.09
119	-0.64	-0.04	.01	-0.02	.02	.33	-0.03	.06	.11	.01	.05	.03	.19	-0.05	.02
120	-0.27	-0.17	.02	-0.04	.59	.24	-0.05	.06	-0.20	.18	.21	-0.02	-0.05	-0.05	.03
121	.17	-0.18	-0.07	.20	.20	.08	.06	.06	.00	.02	.04	-0.06	.19	.16	.05
122	-0.16	-0.03	-0.02	-0.05	.20	.46	.12	.05	-0.16	-0.12	-0.10	.00	-0.12	-0.35	-0.04
123	.08	.75	-0.12	-0.02	-0.03	-0.10	-0.12	.11	.07	-0.11	-0.12	-0.07	-0.00	.14	.06
124	.06	.17	-0.19	-0.03	.19	-0.01	.12	.23	.13	.00	.18	-0.05	-0.06	-0.10	-0.23
125	-0.05	.46	.05	.01	.07	.13	.02	.04	-0.09	-0.03	.05	-0.07	-0.00	-0.57	-0.06
126	-0.41	-0.21	-0.03	-0.10	.30	.28	-0.18	.07	.16	.10	-0.06	.04	.28	-0.27	.08
127	.15	.39	-0.21	.08	-0.11	.13	.08	.01	-0.21	-0.05	-0.00	.00	.04	.06	-0.15

- 27 -

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
128	.06	-0.09	-0.07	.01	.05	.31	.18	.10	.02	.09	.13	-0.08	.01	-0.06	-0.26
129	-0.40	-0.20	-0.16	-0.12	-0.00	.22	.09	.14	.02	.05	.04	.01	.31	-0.17	.11
130	-0.17	.58	.03	.01	.04	.18	.09	.06	-0.11	-0.07	-0.07	.00	.15	-0.37	.08
131	.13	.32	.17	.10	.23	-0.51	-0.17	-0.27	.09	.07	.05	-0.02	-0.01	.01	-0.04
132	-0.02	.20	.09	.13	.15	.04	.30	-0.08	-0.15	-0.07	.40	-0.08	.02	-0.09	-0.33
133	-0.17	.21	.03	-0.00	.13	.08	.17	-0.02	-0.27	-0.07	.23	.04	-0.29	-0.36	-0.19
134	.03	.04	-0.08	.12	-0.03	-0.14	-0.07	.02	.16	.06	-0.07	.06	-0.03	.07	-0.08
135	-0.05	.69	-0.05	-0.01	.21	-0.17	-0.12	.02	-0.01	-0.06	-0.24	.01	.00	.01	-0.03
136	-0.18	.12	-0.09	.07	.67	-0.12	.05	-0.01	-0.02	-0.16	.12	-0.15	.08	.07	-0.12
137	.20	.84	-0.06	-0.01	-0.06	-0.15	-0.08	.04	.15	-0.06	-0.18	-0.09	-0.06	.07	.05
138	-0.33	-0.12	-0.12	-0.10	.13	.08	.15	.06	.12	.04	.03	.06	.51	-0.17	.08
139	.04	.79	-0.08	-0.02	-0.08	.07	.03	.08	-0.03	-0.04	-0.14	-0.04	.01	.15	.09
140	.05	.84	-0.12	-0.01	-0.06	.00	-0.01	.08	-0.02	-0.04	-0.15	-0.06	.01	.07	.05
141	-0.02	-0.09	-0.34	.02	-0.05	.40	.14	.11	-0.04	.12	.16	.06	-0.02	-0.05	-0.50
142	-0.09	.65	.06	.01	-0.07	.17	.05	.08	-0.17	-0.06	.02	-0.03	-0.01	-0.45	.07
144	-0.04	.50	-0.04	-0.05	.04	.09	.14	-0.06	.08	-0.05	.14	-0.02	.04	-0.23	-0.10
145	.04	.02	.06	.14	-0.17	.09	-0.03	.08	.28	.16	-0.04	.10	-0.05	-0.01	-0.00
146	-0.13	.10	-0.07	.13	.31	.20	.07	.05	-0.00	.01	.01	-0.04	-0.01	.01	-0.41
147	-0.08	.09	-0.15	.03	-0.07	.18	.34	.01	.03	.04	.26	.10	.09	-0.02	-0.38
148	-0.16	.23	.03	-0.07	.02	-0.05	-0.04	-0.10	.22	.03	.09	.02	-0.04	-0.56	-0.02
149	-0.21	-0.00	.08	-0.12	.21	.19	.00	-0.14	.06	-0.06	.05	-0.08	-0.05	-0.29	-0.09

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
150	.01	.57	.07	-0.06	-0.20	.14	-0.04	-0.02	.13	.01	-0.03	.03	-0.12	-0.34	.05
151	-0.00	.10	-0.20	-0.04	.33	.03	.16	.14	.14	-0.10	.34	-0.08	.01	.03	-0.18
152	-0.49	-0.08	-0.18	-0.00	-0.02	.35	-0.01	.21	-0.06	-0.03	-0.03	-0.07	.17	-0.43	.07
153	-0.32	-0.16	.01	-0.05	.58	.23	-0.08	.10	-0.19	.17	.21	-0.04	-0.07	-0.04	.06
154	-0.30	.17	-0.00	-0.01	.06	.09	.03	-0.05	.11	.15	.12	.02	.12	-0.20	-0.04
155	-0.33	-0.22	.03	-0.04	.56	.13	.01	-0.05	.04	.00	-0.12	.02	-0.37	-0.08	-0.16
156	-0.10	.27	-0.03	.06	.13	.32	.12	-0.04	-0.21	-0.07	.10	-0.05	-0.19	-0.47	-0.15
157	-0.19	.18	.03	-0.11	-0.31	-0.09	-0.03	.03	.22	.07	.03	.12	-0.12	-0.63	-0.14
158	-0.03	.02	-0.07	-0.02	.28	.06	-0.03	.04	.04	.04	.02	.02	-0.03	-0.02	-0.54
159	-0.08	.24	.04	.01	.00	.19	.18	.05	-0.08	.14	.19	.03	.07	-0.47	-0.14
160	.04	.00	-0.08	-0.02	.05	.25	.23	-0.08	-0.12	.12	.51	-0.05	-0.01	-0.07	-0.23
161	-0.06	.60	.01	.00	-0.11	.18	.02	.11	.01	.04	-0.00	-0.02	.15	-0.31	.16
162	-0.24	.24	-0.19	.01	-0.04	.35	.16	.08	-0.21	-0.15	.07	-0.07	.08	-0.37	.05
163	-0.73	.06	-0.09	-0.06	.02	.13	.04	.18	-0.19	-0.04	.03	-0.13	-0.08	-0.31	.05
164	.03	.52	-0.11	.15	.09	.01	.44	-0.02	.13	-0.08	.13	-0.13	.08	-0.09	-0.05
165	.02	-0.03	-0.24	-0.13	.04	.31	.09	-0.01	.19	-0.07	-0.03	-0.17	-0.12	-0.01	-0.06
166	-0.04	-0.21	-0.09	-0.01	.04	.66	.29	.12	-0.02	-0.07	-0.05	-0.02	-0.02	-0.15	-0.24
167	.21	.68	.17	-0.04	-0.03	-0.34	-0.11	-0.07	.15	.06	.02	-0.13	.05	.08	-0.05
168	-0.03	.11	.10	.14	-0.07	-0.16	-0.18	.18	.28	.25	-0.04	.16	-0.06	-0.06	-0.04
169	-0.05	-0.15	-0.14	-0.08	-0.06	.70	.26	.25	-0.11	-0.08	-0.04	-0.05	.04	-0.18	-0.07
170	-0.56	.06	-0.06	-0.12	.13	-0.01	.10	.01	.07	.02	.06	.11	.01	-0.29	.17

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
171	-0.07	-0.09	-0.05	-0.03	-0.05	.68	.31	.19	.05	-0.04	-0.04	.01	-0.10	-0.17	-0.16
172	.02	.79	-0.00	.04	.08	-0.07	.25	.00	-0.04	-0.09	.02	-0.04	.01	-0.11	.05
173	-0.88	-0.12	-0.08	-0.12	.05	-0.02	-0.02	.01	-0.03	.05	.14	-0.09	-0.06	.01	-0.01
174	-0.03	-0.03	.03	.14	.05	-0.09	-0.11	.06	-0.16	-0.07	.06	.04	.16	.04	.05
175	-0.57	-0.04	.07	.04	.14	.15	.02	.04	-0.06	.05	-0.05	.16	.04	-0.04	.10
176	.16	.68	.02	.04	-0.05	-0.27	.04	.01	.17	.05	.04	.04	.04	.05	-0.03
177	-0.63	-0.10	.03	-0.11	.20	-0.03	-0.05	-0.01	-0.04	.06	-0.04	.01	-0.04	-0.20	-0.07
178	-0.06	-0.05	.03	-0.05	.09	.41	.11	-0.14	-0.05	-0.24	-0.03	-0.21	-0.02	-0.08	-0.06
179	-0.74	.06	.04	-0.03	.03	.10	-0.02	.06	-0.16	-0.03	-0.09	-0.12	-0.04	-0.39	-0.04
180	.21	.59	.07	.06	-0.04	-0.09	.16	-0.10	-0.11	-0.06	.22	-0.07	.03	-0.15	-0.30
181	.02	-0.15	-0.19	.00	-0.02	.17	-0.01	-0.05	.15	-0.02	-0.01	.02	-0.05	-0.09	-0.16
182	.08	.49	-0.06	-0.00	.06	.08	.34	-0.04	-0.13	-0.07	.27	-0.09	.03	-0.15	-0.29
183	-0.51	.23	-0.12	-0.06	-0.15	-0.01	-0.07	-0.00	.08	.05	-0.07	.03	-0.02	-0.56	-0.04
184	.21	.66	.18	-0.16	-0.12	-0.11	-0.06	-0.02	.10	.06	.03	-0.03	-0.10	-0.12	-0.11
185	.05	.07	.01	.17	.00	-0.20	-0.05	-0.11	.06	.17	-0.12	.06	.02	-0.12	.08
186	-0.03	-0.11	-0.01	.02	.09	.02	.06	.01	-0.01	-0.01	.08	-0.09	.04	-0.00	.05
187	.04	.02	-0.03	.04	.02	-0.04	.33	-0.02	.03	.06	.21	.00	.10	-0.07	-0.13
188	-0.22	-0.20	.01	-0.04	.04	.66	.20	.14	.04	-0.05	.06	.02	-0.02	-0.23	-0.16
189	-0.88	-0.17	-0.06	.01	.04	-0.01	-0.03	-0.00	-0.04	-0.04	.08	-0.10	-0.02	-0.02	.04
190	.22	.85	.07	.04	-0.08	-0.07	.13	-0.04	-0.03	-0.02	.07	-0.03	.06	-0.12	-0.10
191	-0.92	-0.19	.02	-0.01	.16	.00	-0.06	-0.00	-0.00	-0.01	-0.02	-0.02	-0.02	.06	-0.02

- 30 -

Table A-4 (continued)

<u>Part 2 - ROTATED FACTOR LOADINGS (continued)</u>

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
192	-0.87	-0.13	.05	.03	.00	.13	-0.03	.07	.07	-0.04	-0.00	.04	.00	.12	.04
193	-0.03	-0.12	-0.04	.06	-0.02	-0.05	-0.11	.16	.21	.09	-0.03	-0.05	.03	-0.05	-0.05
194	.12	.08	.20	.30	.02	-0.29	-0.08	.12	.09	.18	-0.04	.01	-0.02	-0.07	.09
195	-0.67	.08	-0.03	-0.02	-0.01	.10	-0.01	.05	-0.17	-0.04	-0.00	-0.03	-0.03	-0.37	.02
196	-0.01	-0.21	-0.33	-0.05	-0.03	.45	.03	.20	.11	-0.00	.15	-0.08	-0.09	-0.06	-0.10
197	.23	.74	.11	-0.01	-0.01	-0.12	.11	-0.01	-0.06	.05	.15	-0.06	-0.05	-0.15	-0.19
198	-0.06	.03	-0.02	.16	.06	-0.17	-0.13	-0.09	-0.08	.20	.09	-0.09	-0.04	-0.03	-0.04
199	.07	.80	.13	.07	.05	-0.07	.08	.01	-0.01	-0.05	.05	-0.02	.02	-0.21	-0.06
200	-0.56	-0.05	-0.07	-0.02	.07	.23	-0.01	.12	-0.16	-0.06	-0.00	-0.05	.10	-0.37	.05
201	-0.14	-0.17	-0.15	.09	.02	.64	.05	-0.04	.11	-0.03	.06	.04	-0.16	-0.06	-0.13
202	.05	.18	-0.19	.17	.11	.16	.08	-0.07	.14	.13	.10	-0.05	.09	-0.12	-0.06
203	.21	.57	.17	-0.05	-0.03	-0.19	.05	-0.02	.04	.08	.09	-0.02	-0.04	-0.15	-0.19
204	-0.84	.08	-0.05	-0.09	-0.07	-0.03	.04	.11	-0.06	.03	.08	-0.09	-0.01	-0.25	.01
205	-0.03	.03	.04	.08	-0.07	-0.15	-0.13	.12	.45	.29	-0.11	.13	-0.08	.04	-0.02
206	.03	-0.02	-0.16	.15	.06	-0.22	-0.11	.01	.19	.23	.04	.03	-0.12	-0.07	.16
207	.10	.44	.01	.12	.09	-0.12	.39	.03	-0.01	-0.04	.22	.09	-0.03	-0.04	-0.16
208	.06	-0.17	-0.09	.37	-0.13	-0.07	-0.02	.06	.06	.09	-0.13	.03	.04	-0.07	.15
209	-0.27	-0.03	.24	-0.05	.08	.44	.02	-0.02	.03	.07	.22	.05	.14	-0.02	.12
210	-0.03	-0.02	-0.22	.49	.03	.07	-0.14	.02	-0.09	.17	.07	.07	.05	.12	-0.06
211	-0.01	.29	.02	.01	.05	-0.03	.09	.03	.12	-0.03	.20	.24	-0.09	-0.05	-0.11
212	-0.04	.06	-0.05	.09	.02	.02	.08	.06	.14	-0.15	-0.00	.24	-0.04	.02	-0.02

- 31 -

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
213	-0.87	-0.18	-0.08	-0.01	.06	.03	-0.13	-0.02	.00	-0.00	-0.04	-0.06	-0.11	-0.05	-0.04
214	-0.26	-0.14	-0.07	-0.05	.05	.52	.06	.26	.06	-0.07	.20	.04	.05	-0.01	-0.05
215	-0.45	.01	.07	.12	.08	.15	.10	-0.13	.28	-0.15	.02	-0.05	.01	-0.06	.03
216	.09	.69	.21	.08	.00	-0.11	.04	.07	.08	.02	-0.12	.14	-0.03	-0.13	-0.13
217	-0.05	.11	-0.23	-0.01	.19	.06	.39	.11	.10	-0.24	.14	-0.00	.11	.14	-0.12
218	.06	.70	.01	.04	.12	-0.11	.10	-0.00	.02	.09	.17	.04	.04	-0.04	-0.03
219	.02	.05	.02	-0.10	.01	.16	.09	.16	.14	-0.06	.01	-0.05	-0.01	-0.02	-0.08
220	-0.01	.12	.06	.46	-0.05	.11	.10	-0.10	.18	.03	-0.03	.00	.00	.13	.01
221	-0.42	-0.09	-0.01	-0.01	-0.02	.15	.16	-0.06	.13	-0.13	-0.06	.07	-0.04	-0.02	-0.02
222	-0.05	.03	-0.07	.55	.01	-0.07	-0.05	-0.01	-0.03	.05	-0.02	.12	.02	.08	.11
223	.01	-0.12	-0.13	.08	.02	.11	.49	-0.00	.13	-0.09	.14	-0.09	-0.07	-0.06	.07
224	-0.35	-0.20	-0.07	.07	.63	.07	-0.13	.00	-0.04	-0.02	-0.07	.02	-0.03	-0.02	.07
225	-0.31	-0.04	-0.20	.00	.30	.09	.19	.02	-0.00	-0.17	.26	.01	-0.00	-0.02	-0.19
226	-0.00	-0.10	-0.20	.36	-0.06	-0.08	-0.05	.05	.07	.07	-0.09	-0.03	.04	-0.05	-0.13
227	.08	.00	-0.07	.03	-0.03	-0.06	.08	-0.11	.36	.05	.11	.12	-0.05	.00	-0.08
228	-0.27	.06	.08	.15	.10	.10	.03	-0.10	.21	-0.09	-0.08	-0.00	.05	.04	-0.05
229	.05	.03	-0.02	.35	-0.12	-0.22	-0.09	-0.05	.02	.41	-0.02	.07	-0.08	-0.08	.01
230	.09	.01	-0.37	.10	-0.02	-0.17	.10	.01	.08	.08	.04	.09	-0.07	.01	-0.07
231	.11	.06	-0.15	.19	.11	-0.35	.24	-0.05	.02	.07	.08	.14	-0.26	-0.02	-0.03
232	-0.77	-0.09	.05	.09	.21	.12	-0.13	-0.07	.09	-0.06	-0.06	.04	.01	-0.05	-0.08
233	.30	.33	-0.15	.04	-0.56	.01	.07	.01	.04	-0.10	-0.04	.09	.12	-0.01	.03

Table A-4 (continued)

<u>Part 2 - ROTATED FACTOR LOADINGS (continued)</u>

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
234	.06	-0.08	-0.02	.50	.06	-0.05	-0.01	-0.02	.02	.16	-0.04	-0.09	-0.06	.02	.00
235	-0.04	.05	-0.09	.08	.09	.10	.03	-0.01	.28	.13	.04	.09	.02	.04	.07
236	-0.55	-0.12	.08	.08	.50	.08	.03	-0.09	.05	-0.01	-0.13	.12	.19	-0.12	-0.02
237	.04	.02	-0.15	.15	.01	-0.28	-0.14	.01	.10	.06	.05	.07	-0.12	-0.06	.22
238	-0.04	-0.03	.17	.25	.04	.00	-0.52	.01	.18	-0.08	.11	-0.33	.05	-0.05	-0.10
239	-0.02	.07	.05	-0.04	.02	.07	.05	-0.00	.32	-0.06	-0.03	-0.16	.01	.01	.11
240	-0.07	-0.22	-0.43	.14	-0.10	.27	.20	.16	-0.01	.16	.11	.07	-0.04	-0.08	-0.01
241	-0.16	-0.13	-0.11	.11	.65	-0.07	-0.12	.14	-0.08	-0.09	-0.07	-0.12	.14	.00	.05
242	-0.03	-0.01	.10	.27	.07	.03	-0.39	.01	.15	-0.02	.25	-0.15	-0.07	-0.08	-0.08
243	-0.06	-0.05	-0.03	.00	.00	.32	.15	.69	-0.04	-0.03	.12	.02	.02	.04	-0.04
244	-0.07	.17	-0.10	.10	.03	.12	-0.01	-0.02	.34	.04	.07	-0.04	.01	.02	-0.09
245	-0.07	.11	-0.05	.03	.29	-0.01	.22	-0.01	.15	-0.30	.28	-0.03	.10	.07	-0.08
246	.14	.67	.12	-0.08	.04	-0.23	.03	-0.09	.15	.01	.10	-0.14	-0.01	-0.04	-0.14
247	-0.03	.00	-0.15	.64	-0.02	.05	.06	.00	.08	.10	-0.14	-0.03	-0.04	.08	-0.05
248	.20	.51	.22	.08	-0.01	-0.60	-0.07	-0.08	.09	.04	.08	.09	-0.10	.09	-0.01
249	.06	.09	.08	.54	-0.04	-0.09	.04	-0.04	.04	.16	.01	-0.02	-0.05	.02	-0.04
250	-0.31	-0.11	-0.01	-0.00	.00	.54	.11	.07	-0.03	-0.03	.20	-0.07	.07	.11	.07
251	-0.08	-0.02	-0.02	.22	-0.08	.10	-0.01	.00	.26	-0.07	.08	-0.08	-0.02	.02	-0.01
252	-0.04	.03	.09	.55	-0.07	.07	.06	-0.10	.04	.05	.04	.04	.02	.09	.01
253	-0.07	.03	.07	.12	-0.10	-0.10	-0.40	-0.03	.20	.13	.17	-0.03	-0.17	-0.09	.02
254	-0.22	.12	-0.10	.18	.09	.14	.24	-0.08	.21	-0.20	.03	-0.18	.15	-0.04	.02

- 35 -

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
255	.12	-0.05	-0.23	.21	.08	-0.19	-0.11	-0.00	-0.07	.18	-0.01	.13	.02	.02	.09
256	-0.59	-0.15	.02	.02	.49	-0.01	.03	.00	.06	-0.00	-0.02	.08	.17	-0.10	.03
257	-0.12	.15	.04	.18	.06	-0.12	.03	-0.00	.20	-0.03	-0.02	.11	.08	.03	-0.06
258	-0.02	-0.03	.02	-0.01	.00	-0.06	-0.07	-0.04	.12	.18	.15	-0.03	-0.17	-0.02	-0.07
259	-0.42	-0.28	.05	-0.05	.66	-0.00	-0.01	-0.11	.01	-0.02	.15	.02	-0.04	.02	.03
260	-0.03	-0.00	-0.24	.21	.04	-0.24	-0.10	.16	.01	.21	-0.01	.16	-0.18	.06	.05
261	-0.05	-0.01	.10	.57	-0.09	-0.05	-0.11	-0.03	.05	.08	-0.02	-0.05	-0.05	.00	-0.07
262	-0.35	-0.04	.08	.04	-0.01	.67	.10	.01	.02	.00	.22	.09	.11	-0.02	.09
263	.15	.50	.12	.10	.09	-0.40	.17	-0.09	.05	-0.01	.05	.04	-0.15	.10	-0.00
264	-0.16	.39	-0.02	.08	.29	-0.13	.20	-0.13	.24	-0.06	.04	-0.18	.16	-0.05	-0.19
265	.02	.02	-0.50	.03	.10	.04	.23	-0.05	.10	-0.06	-0.02	-0.00	.03	.00	.01
266	.00	.20	.13	.05	.00	-0.09	.14	.09	.37	-0.03	-0.06	.11	.04	-0.04	-0.07
267	-0.59	-0.15	-0.19	.02	.00	.03	-0.02	-0.11	.11	.08	.03	-0.05	-0.02	-0.04	-0.01
268	-0.06	.25	.05	.11	-0.06	.03	-0.03	-0.08	.12	.01	.05	.09	.01	-0.09	-0.04
269	-0.08	-0.08	-0.39	.01	-0.07	.26	.12	.15	.16	-0.08	.18	.13	-0.03	-0.01	-0.07
270	-0.00	-0.02	-0.22	.09	-0.07	.07	.10	.14	-0.02	.02	-0.11	.44	.02	.01	-0.21
271	-0.04	-0.04	-0.03	.58	.07	-0.09	.01	.01	-0.00	.17	-0.03	.07	.02	-0.01	.02
272	.08	-0.14	-0.00	.22	-0.02	-0.16	-0.16	.09	-0.07	.00	.08	.20	-0.07	-0.13	-0.03
273	-0.43	-0.01	.04	.70	-0.05	-0.01	-0.00	-0.14	.13	.09	.04	-0.04	.01	.01	-0.09
274	.01	.04	-0.08	.32	.04	.03	.01	.00	-0.03	.15	.09	-0.10	.01	-0.07	-0.00
275	.06	.00	-0.04	.34	-0.04	.02	-0.11	-0.08	-0.05	.35	-0.00	.14	-0.01	.03	.04

Table A-4 (continued)

<u>Part 2 - ROTATED FACTOR LOADINGS (continued)</u>

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
276	.29	.49	.19	.04	.01	-0.27	.03	.06	.05	.03	-0.07	.00	-0.08	.15	-0.06
277	.01	.03	-0.03	.20	-0.04	-0.06	-0.42	.04	.06	.47	.07	.04	.02	-0.07	-0.09
278	-0.88	-0.19	-0.03	.06	.16	-0.02	-0.07	-0.05	.02	.00	-0.03	-0.05	-0.04	.01	.04
279	.12	-0.03	.11	.49	.10	-0.12	-0.04	-0.02	-0.03	.19	.01	-0.03	-0.05	-0.10	.02
280	.04	-0.09	-0.40	.04	-0.09	.05	.08	.12	-0.05	.07	-0.06	.49	.10	-0.01	-0.03
281	.08	.34	.21	.03	.07	.11	.37	-0.00	.05	-0.15	.01	.02	-0.00	-0.07	-0.15
282	-0.03	-0.07	-0.21	.41	.16	.05	-0.09	-0.11	-0.15	-0.03	.17	.05	.06	-0.03	.03
283	.01	-0.12	-0.08	.10	.06	-0.15	-0.43	-0.15	-0.06	.23	-0.07	-0.01	.03	-0.12	.05
284	-0.05	-0.11	-0.41	-0.03	-0.03	-0.17	.02	.11	.03	.03	-0.13	.12	-0.08	-0.03	-0.09
285	-0.20	.17	-0.06	.11	.02	-0.02	.03	.05	.44	-0.13	-0.14	-0.09	-0.00	.04	.00
286	-0.05	.04	-0.17	.03	-0.01	.14	.56	.24	.22	-0.05	.17	-0.05	.16	-0.05	-0.06
287	.13	.05	-0.03	.27	-0.19	-0.27	-0.23	.03	.20	.19	-0.01	.12	-0.08	-0.03	.04
288	-0.43	-0.07	.06	.01	.16	.18	.14	-0.13	.09	-0.01	-0.02	.12	-0.08	-0.03	-0.05
289	-0.01	-0.00	-0.03	.22	-0.10	-0.12	-0.05	.06	.17	.08	.12	.08	-0.28	-0.04	.17
290	.01	.06	.24	-0.03	-0.01	-0.02	.01	.11	.18	-0.21	.03	.05	.02	-0.02	.04
291	-0.88	-0.20	-0.02	.05	.16	-0.02	-0.11	-0.06	.02	-0.01	-0.08	-0.03	-0.07	.06	.02
292	-0.62	-0.29	-0.01	-0.00	.29	.30	.04	-0.05	.03	-0.10	.04	.06	-0.04	.03	.05
293	-0.17	-0.10	-0.05	-0.15	.30	.10	.04	-0.07	.07	.03	.16	.08	-0.22	.03	-0.09
294	-0.07	.05	-0.19	.08	.10	.27	.30	.05	.14	.11	.02	-0.13	.04	-0.07	-0.11
295	.23	.77	.13	.01	-0.02	-0.17	.11	-0.08	.04	.02	.01	.03	-0.04	-0.05	-0.09
296	-0.06	.02	-0.27	.04	.12	.00	.38	.06	.11	-0.04	.12	.12	.00	-0.02	-0.17

- 35 -

Table A-4 (continued)

Part 2 - ROTATED FACTOR LOADINGS (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
297	-0.12	-0.02	-0.12	.57	-0.03	-0.05	.08	-0.05	.02	.05	.10	-0.07	.12	.05	-0.10
298	-0.35	-0.09	-0.18	-0.06	.12	.51	.06	.02	-0.05	.04	.09	.08	.01	-0.13	-0.28
299	-0.12	-0.13	-0.23	-0.02	-0.04	.14	.08	-0.23	-0.21	.02	.24	-0.09	.05	.04	-0.14
300	-0.17	.36	.09	-0.07	.52	-0.17	-0.12	-0.05	.08	-0.05	-0.21	.04	-0.20	.08	.04
301	.07	.00	.22	.16	-0.28	.07	-0.17	-0.15	.05	.09	.02	.08	-0.12	-0.09	.02
302	.11	-0.08	-0.08	.08	.09	.04	.34	-0.10	-0.13	-0.04	.05	-0.06	-0.05	.07	.05
303	.00	.19	.17	.07	.09	-0.10	.25	-0.03	.26	-0.09	-0.21	-0.22	.08	.01	.09
304	-0.00	.25	.24	.15	.06	-0.13	.04	-0.10	.08	-0.05	-0.21	-0.12	-0.01	.06	-0.03
305	-0.05	.22	.00	-0.00	.36	-0.43	-0.04	-0.15	-0.06	-0.18	.25	-0.03	.04	.17	.02
306	-0.02	-0.06	-0.06	.19	.08	-0.22	-0.00	.04	-0.19	.12	.19	.19	.06	.03	.12
307	-0.09	-0.00	-0.24	-0.17	.02	.09	.11	-0.01	-0.07	-0.12	.06	-0.03	.04	-0.01	.07
308	-0.03	.03	.11	-0.02	.04	-0.06	-0.27	-0.32	.10	-0.01	.08	.15	-0.06	.08	.02
309	.21	.45	.11	.03	-0.12	-0.32	.19	-0.14	.06	.05	-0.09	.16	-0.09	.07	.09
310	-0.04	-0.00	-0.01	.07	-0.06	.00	-0.20	-0.07	.03	-0.12	-0.02	-0.02	.12	.10	.15
311	-0.03	.01	.05	-0.05	.17	.01	.03	-0.09	.05	-0.06	-0.06	.05	.01	.04	.02
312	.02	-0.00	.18	.12	-0.04	-0.13	-0.06	-0.05	-0.12	.09	.07	.14	.04	-0.08	.02
313	-0.02	-0.26	-0.11	.09	.14	.28	.37	.04	-0.11	-0.12	.07	.01	.07	-0.00	-0.25
314	.04	.06	.14	.14	-0.03	.01	-0.01	-0.25	.02	.04	.05	-0.08	-0.00	-0.05	-0.09
315	-0.13	-0.03	.06	.05	-0.01	.07	-0.29	-0.24	.11	.10	.01	-0.18	.06	-0.03	.02
316	-0.57	-0.20	.06	.00	-0.19	.22	-0.12	.21	.20	.01	-0.11	.06	.01	.06	.17

Table A-4 (continued)

<u>Part 2 -- ROTATED FACTOR LOADINGS (continued)</u>

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
317	-0.12	.17	.19	-0.04	.03	.10	.00	.04	.17	-0.38	.01	-0.05	.10	.04	.06
318	-0.19	-0.52	-0.11	.06	.06	.36	.08	.01	-0.10	-0.05	.15	.12	.01	.19	-0.06
319	.13	.06	-0.12	-0.02	-0.07	-0.24	-0.11	-0.00	.08	-0.14	-0.01	.35	.03	.02	.04
320	-0.03	.01	.01	-0.14	-0.04	.22	.15	-0.08	.19	-0.03	-0.27	-0.26	-0.03	.03	.02
321	.06	-0.02	.02	.02	-0.01	-0.05	.10	-0.02	-0.06	.04	-0.01	.30	.14	.02	-0.02
322	.01	.17	.23	-0.08	-0.04	.07	.27	.01	.14	-0.24	-0.16	.01	-0.10	.10	.03
323	-0.07	.04	.11	.03	-0.06	-0.02	-0.08	.11	.14	-0.13	-0.04	.34	-0.02	.06	.18
324	.01	.04	-0.14	.02	.11	-0.00	-0.34	-0.06	.01	-0.10	-0.07	-0.05	.06	.08	.02
325	-0.02	-0.01	-0.01	-0.03	-0.05	-0.08	-0.08	-0.03	-0.05	-0.06	.26	.25	-0.08	-0.03	.00
326	.10	.22	.15	.09	.03	-0.27	-0.03	-0.07	-0.08	.00	.17	.27	-0.04	.09	.05
327	-0.03	.31	-0.03	-0.12	-0.23	.01	.06	-0.06	.09	.07	-0.08	.29	-0.04	-0.00	.26
328	-0.02	-0.00	.30	.11	.20	-0.21	-0.17	-0.09	-0.09	-0.13	.15	.24	.07	.06	-0.06
329	-0.29	-0.26	-0.08	.11	-0.07	.33	-0.14	.09	.06	-0.08	-0.03	.10	.16	.02	.22
330	.09	.12	.29	-0.17	-0.09	.17	.17	-0.06	.18	-0.10	-0.16	.05	.11	.13	.06